

Remarks

1. Summary of the Office Action

In the office action mailed February 22, 2007, the Examiner rejected claims 14-21 under 35 U.S.C. § 112 on grounds that the claims used a slash between two terms, which the Examiner interpreted to mean "and/or" and thus to be indefinite. In addition, the Examiner rejected claims 1-3, 8, 13, 14, 17, 18, and 21 under 35 U.S.C. § 103 as being allegedly obvious over U.S. Patent No. 5,887,249 (Schmid) in view of U.S. Patent No. 6,915,132 (Chatterjee), and the Examiner rejected claims 4-7, 9-12, 15-16, and 19-21 under 35 U.S.C. § 103 as being allegedly obvious over Schmid in view of Chatterjee in view of U.S. Patent No. 6,6218,934 (Rosenberg).

2. Status of the Claims

Applicant has amended various claims to replace the term "MIN/ESN" with the term "MIN-ESN", where the claims clearly define that term to mean MIN and ESN, rather than MIN and/or ESN.

In addition, Applicant has amended each of the independent claims in order to more particularly point out and distinctly claim the subject matter that Applicant regards as the invention, and thus to better define the inventive advance over the cited art.

For instance, Applicant has amended claim 1 to add that (i) granting radio network access to the each wireless device operating under the given MIN and the given ESN comprises receiving a registration request from the wireless device and responsively sending an authentication request carrying the given MIN and given ESN to an authentication entity, and receiving from the authentication entity, in response to the authentication request, an authentication response, (ii) wherein the authentication entity comprises at least one of a home location register (HLR) and an authentication center (AC), (iii) wherein the authentication entity

allows multiple wireless devices to operate concurrently under the given MIN and given ESN, and (iv) wherein the authentication entity also receives and responds to authentication requests for previously-activated wireless devices.

Further, Applicant has amended claim 8 to add that (i) granting radio network access to the each wireless device comprises receiving a registration request from the wireless device and responsively sending an authentication request carrying the given MIN and given ESN to an authentication entity, and receiving from the authentication entity, in response to the authentication request, an authentication response, (ii) wherein the authentication entity comprises at least one of HLR and an AC, (iii) wherein the authentication entity allows multiple wireless devices to operate concurrently under the given MIN and given ESN, and (iv) wherein the authentication entity also receives and responds to authentication requests for previously-activated wireless devices.

Still further, Applicant has amended claim 14 to add that (i) the data storage of the wireless device contains application logic executable by the processor to use the pre-activation MIN-ESN pair as a basis to request radio frequency (RF) connectivity from a wireless carrier and (ii) wherein, by using the MIN-ESN pair to gain RF connectivity, the wireless device is authenticatable by a network authentication entity that also authenticates previously-activated wireless devices based on MIN and ESN.

Yet further, Applicant has amended claim 18 to add that, by using the MIN-ESN pair to gain RF connectivity, the wireless device is authenticatable by a network authentication entity that also authenticates previously-activated wireless devices based on MIN and ESN.

And still further, Applicant has amended claim 21 to add that (i) the radio network access system grants radio network access to each cellular telephone at least in part by receiving from the cellular telephone a registration request carrying the common MIN-ESN pair, responsively conveying an authentication request carrying the common MIN-ESN pair to an authentication entity, and receiving from the authentication entity, in response to the authentication request, an authentication response, (ii) wherein the authentication entity comprises at least one of an HLR) and an AC, (iii) wherein the authentication entity allows multiple wireless devices to operate concurrently under the common MIN-ESN pair, and (iv) wherein the authentication entity also receives and responds to authentication requests for previously-activated wireless devices.

Applicant has also cancelled claim 3 in view of the amendment of claim 1, and Applicant has made amendments to some other claims to correct typographical errors and for consistency with the amendments to the independent claims.

Now pending are claims 1-2 and 4-21, of which claims 1, 8, 14, 18, and 21 are independent and the remainder are dependent.

3. Response to § 112 Rejection

Applicant submits that the slash in the term "MIN/ESN" as used in the claims did not render the claims indefinite, since the language of the claims clearly referred to a MIN/ESN pair, i.e., to a MIN and ESN. Nevertheless, to expedite prosecution in view of the Examiner's § 112 rejection, Applicant has amended the claims to replace "MIN/ESN" with "MIN-ESN", thus avoiding any question about the slash.

4. Response to § 103 Rejections

The Examiner has rejected each of the independent claims as being allegedly obvious over Schmid in view of Chatterjee. Applicant submits that the claims as originally written recited non-obvious subject matter compared with the cited art, since the claims specifically recited that multiple wireless contained the same MIN and ESN usable by each for gaining radio network connectivity, and since Schmid and Chatterjee clearly teach away from that arrangement.

The Examiner has admitted that Schmid fails to teach granting radio network access to separate wireless devices that operate under the same MIN and ESN. The Examiner then relied on the teaching of Chatterjee in an effort to show that this would have been obvious.

Chatterjee teaches (i) each wireless device having a common OTAF ID and sending that OTAF ID in a registration message to the radio network, (ii) the radio network then sending the OTAF ID in a registration message to a signal transfer point (STP), and (iii) the STP detecting the OTAF ID and responsively routing the registration message to an activation processor instead of to the authentication entity (HLR) that normally receives and handles such registration messages. On the other hand, Chatterjee teaches that when a previously-activated wireless device sends a registration request to the radio network, the device would include its previously assigned MIN and its ESN, and the STP would responsively send the registration message to the HLR as normal.

Chatterjee also teaches that, in alternative embodiment, each wireless device may instead contain a respective dummy MIN. However, Chatterjee specifically teaches without exception that if a dummy MIN is used, it is different per wireless device. Further, Chatterjee teaches that a dummy MIN is used in the same way as Chatterjee's common OTAF ID, namely, to cause the

STP to route the registration request to the special activation processor. And again, Chatterjee makes clear that this routing to the OTAF processor is particularly different than the normal way of handling registration requests, in which registration requests are routed to the HLR.

Since each of the independent claims originally recited that multiple wireless devices contain or use a common MIN-ESN pair to gain RF connectivity, the claims as written patentably distinguished over Schmid and Chatterjee. Although Chatterjee suggests using a common OTAF ID for directing registration requests for multiple wireless devices to a special activation processor, Chatterjee specifically teaches away from using a common MIN (and therefore from using a common MIN-ESN pair) for that purpose. Chatterjee teaches, without exception, that if a dummy MIN is provided in the wireless device's registration request, that dummy MIN will be different in every wireless device. Chatterjee does not explain why this is so, but it is likely so in order to avoid confusion by having the same MIN in multiple wireless devices. Thus, considering the art cited by the Examiner, it would not have been a logical advance to provide the same dummy MIN in multiple wireless devices.

Furthermore, as now amended, the independent claims make clear that each wireless device using the inventive common MIN-ESN pair for gaining RF connectivity can advantageously be authenticated by the very same authentication entity that conventionally authenticates previously-activated wireless devices. Thus, when a wireless device sends a registration request providing the common MIN-ESN pair, the network can conveniently use its normal authentication infrastructure to allow that wireless device to gain RF connectivity. Just as the network does with devices that have been previously activated and thus that already have (and provide) a uniquely assigned MIN, the network can send an authentication request to the

HLR/AC, and the HLR/AC can use the MIN-ESN pair as a basis to authenticate the wireless device.

This is in stark contrast with the arrangement taught by Chatterjee. In Chatterjee, (i) the registration message for a wireless device using the common OTAF ID or a unique dummy MIN gets routed to a special activation processor, whereas (ii) the registration message for a previously-activated wireless device gets routed conventionally to the HLR. In the present invention, an authentication request for a wireless device using a common MIN-ESN pair can be routed to the very same authentication entity (e.g., HLR and/or AC) that functions to authenticate previously-activated wireless devices based on MIN and ESN as well. Advantageously, by having the common pre-authentication data be a common MIN-ESN pair, the present invention thus enables wireless devices to gain RF connectivity using the standard, conventional authentication infrastructure (e.g., the HLR and/or AC), based on MIN and ESN. The invention is thus far more convenient and simple than what the cited suggests.

Because each of Applicant's claims as a whole significantly advances over the cited art, and because the cited art clearly teaches away from having a common MIN-ESN pair in multiple wireless devices for gaining RF connectivity, Applicant submits that the invention recited as a whole in each of the independent claims patentably distinguishes over the cited art. Consequently, Applicant submits that each of the independent claims is allowable. Furthermore, without conceding the Examiner's other assertions, Applicant submits that each of the dependent claims is allowable for at least the reason they each depend from one of the allowable independent claims.

5. Conclusion

For these reasons, Applicant respectfully requests favorable reconsideration and allowance of all of the pending claims.

Should the Examiner wish to discuss this case with the undersigned, the Examiner is invited to call the undersigned at (312) 913-2141.

Respectfully submitted,

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